

TP 4

Data mining

Agenda

- Traffic data introduction
- Data set presentation
- TP 4 presentation
- TP 4

Level of service (LOS)



LOS A



LOS B



LOS C



LOS D



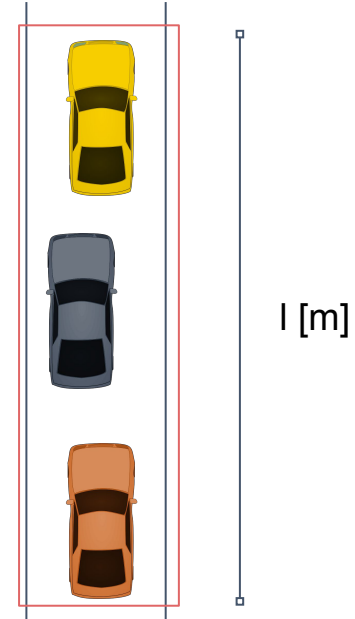
LOS E



LOS F

Density

- Spatial density of vehicles
- Written k or ρ
- veh / meter
- $k = \frac{n}{l}$
- Linear Occupancy
 - $O = (L+d)*k$



Flow



$$Q = \rho \cdot v \cdot \delta S$$

Q [kg/s]

ρ [kg/m^3]

v [m/s]

δS [m^2]



$$Q = \rho \cdot v \cdot \delta S$$

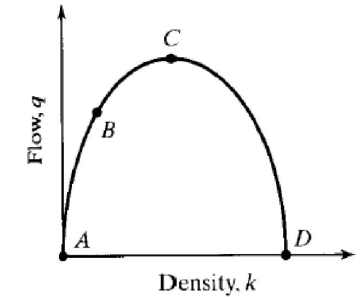
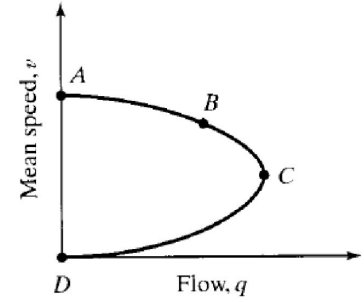
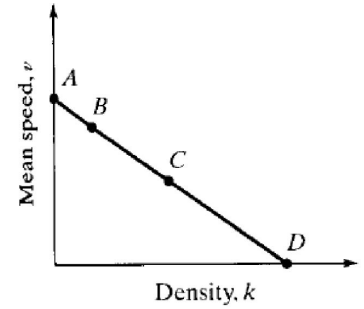
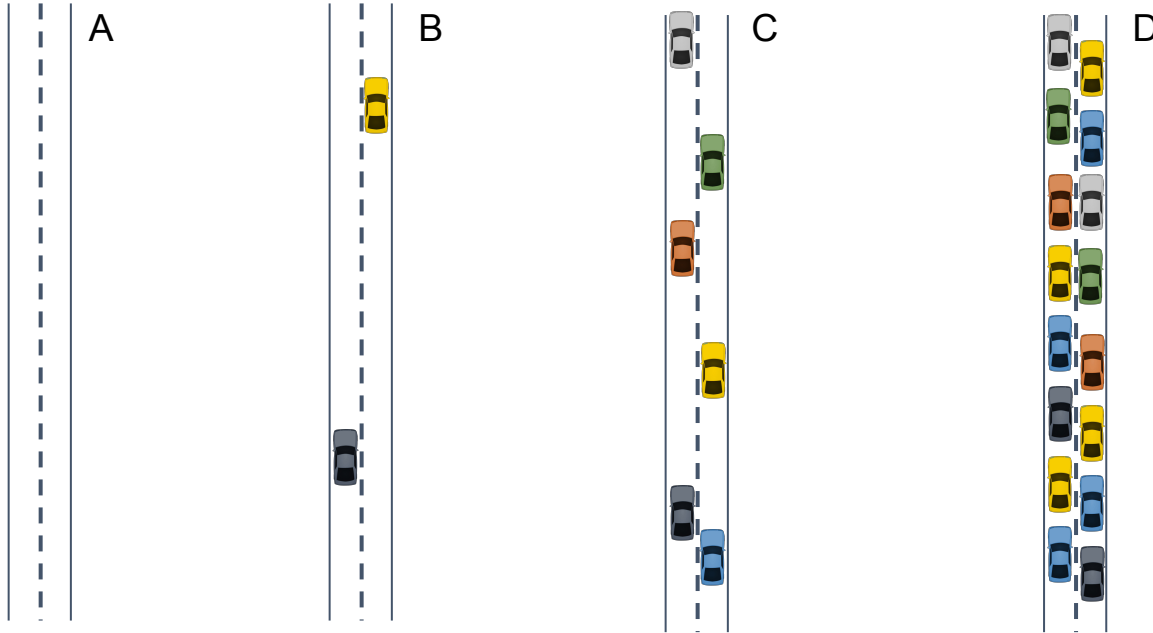
Q [veh/s]

ρ [veh/m]





v [m/s]

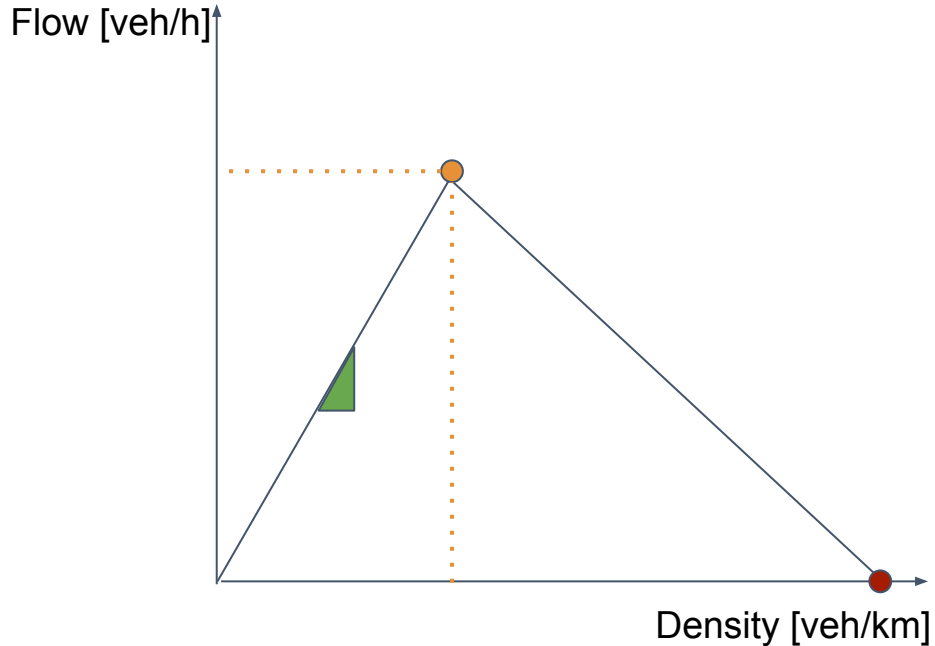
δS [m]

Fundamental diagram

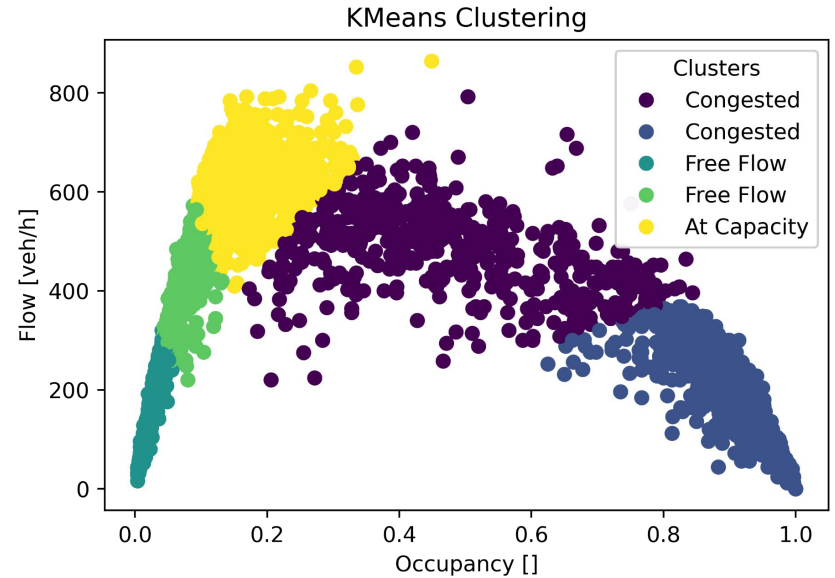


Fundamental diagram

- Capacity [veh/h] 
- Gridlock density [veh/km] 
- Critical density [veh/km] 
- Free flow [km/h] 



Real life dataset



Toronto's dataset

- From UTD 19
- Speed
- Flow
- Occupancy

